



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Russell E. Abbink, et al

Serial No.: 10/678,843

Examiner: Unknown

Filed: October 3, 2003

Group Art Unit: 2877

For: Optical Spectroscopy Incorporating a Vertical Cavity Surface Emitting  
Laser (VCSEL)

Docket No.: P0049.US2

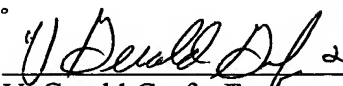
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Pursuant to the obligations of candor and good faith imposed by 37 C.F.R. 1.56,  
the documents listed on the attached PTO-1449 are hereby disclosed.

No representation is intended to be made hereby that any of the cited references  
establishes, by itself or in combination with other information, a prima facie case of  
unpatentability of any claim of the present case.

Respectfully submitted,

 JAN 28, 2004  
V. Gerald Grafe, Esq. Date  
Registration Number: 42,599  
General Counsel  
InLight Solutions, Inc.  
800 Bradbury SE  
Albuquerque, NM 87106

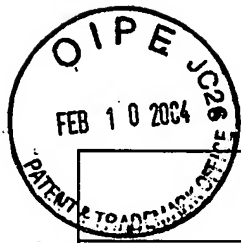
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**FORM PTO-1449**Atty. Docket No.:  
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10/678,843LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION  
DISCLOSURE STATEMENT

Applicant: Russell E. Abbink et al

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2877

## U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Filing Date If Appropriate
AA	4,094,609	06/13/1978	Fujii et al.	
AB	4,653,880	03/31/1987	Sting et al.	
AC	4,655,225	04/07/1987	Dahne et al.	
AD	4,661,706	04/28/1987	Messerschmidt et al.	
AE	4,684,255	08/04/1987	Ford	
AF	4,712,912	12/15/1987	Messerschmidt	
AG	4,730,882	03/15/1988	Messerschmidt	
AH	4,853,542	08/01/1989	Milosevic et al.	
AI	4,857,735	08/15/1989	Noller	
AJ	4,859,064	08/22/1989	Messerschmidt et al.	
AK	4,867,557	09/19/1989	Takatani et al.	
AL	4,882,492	11/21/1989	Schlager	
AM	4,883,953	11/28/1989	Koashi et al.	
AN	4,975,581	12/04/1990	Robinson et al.	
AO	5,007,423	04/16/1991	Branstetter et al.	
AP	5,015,100	05/14/1991	Doyle	
AQ	5,028,787	07/02/1991	Rosenthal et al.	
AR	5,068,536	11/26/1991	Rosenthal	
AS	5,070,874	12/10/1991	Barnes et al.	
AT	5,109,465	04/28/1992	Klopotek	
AU	5,158,082	10/27/1992	Jones	
AV	5,178,142	01/12/1993	Harjunmaa et al.	
AW	5,188,108	02/23/1993	Secker	
AX	5,204,532	04/20/1993	Rosenthal	
AY	5,222,496	06/29/1993	Clarke et al.	

Examiner Initial	Document No.	Date	Name	Filing Date If Appropriate
AZ	5,223,715	06/29/1993	Taylor	
BA	5,224,478	07/06/1993	Sakai et al.	
BB	5,225,678	07/06/1993	Messerschmidt	
BC	5,237,178	08/17/1993	Rosenthal et al.	
BD	5,243,546	09/07/1993	Maggard	
BE	5,257,086	10/26/1993	Fateley et al.	
BF	5,267,152	11/30/1993	Yang et al.	
BG	5,268,749	12/07/1993	Weber et al.	
BH	5,303,026	04/12/1994	Strobl et al.	
BI	5,311,021	05/10/1994	Messerschmidt	
BJ	5,348,003	09/20/1994	Caro	
BK	5,355,880	10/18/1994	Thomas et al.	
BL	5,360,004	11/01/1994	Purdy et al.	
BM	5,361,758	11/08/1994	Hall et al.	
BN	5,379,764	01/10/1995	Barnes et al.	
BO	5,402,778	04/04/1995	Chance	
BP	5,419,321	05/30/1995	Evans	
BQ	5,435,309	07/25/1995	Thomas et al.	
BR	5,459,317	10/17/1995	Small et al.	
BS	5,459,677	10/17/1995	Kowalski et al.	
BT	5,460,177	10/24/1995	Purdy et al.	
BU	5,490,506	02/13/1996	Takatani et al.	
BV	5,494,032	02/27/1996	Robinson et al.	
BW	5,515,847	05/14/1996	Braig et al.	
BX	5,533,509	07/09/1996	Koashi et al.	
BY	5,592,402	01/07/1997	Beebe et al.	
BZ	5,596,992	01/28/1997	Haaland et al.	
CA	5,606,164	02/25/1997	Price et al.	
CB	5,630,413	05/20/1997	Thomas et al.	
CC	5,636,633	06/10/1997	Messerschmidt et al.	
CD	5,655,530	08/12/1997	Messerschmidt	
CE	5,672,875	09/30/1997	Block et al.	

Examiner Initial		Document No.	Date	Name	Filing Date If Appropriate
CF		5,677,762	10/14/1997	Ortyn et al.	
CG		5,708,593	01/13/1998	Saby et al.	
CH		5,743,262	04/28/1998	Lepper, Jr. et al.	
CI		5,747,806	05/05/1998	Khalil	
CJ		5,750,994	05/12/1998	Schlager	
CK		5,782,755	07/21/1998	Chance et al.	
CL		5,792,050	08/11/1998	Alam et al.	
CM		5,808,739	09/15/1998	Turner et al.	
CN		5,817,007	10/06/1998	Fodgaard et al.	
CO		5,818,048	10/06/1998	Sodickson et al.	
CP		5,823,951	10/20/1998	Messerschmidt et al.	
CQ		5,828,066	10/27/1998	Messerschmidt	
CR		5,830,132	11/03/1998	Robinson	
CS		5,853,370	12/29/1998	Chance et al.	
CT		5,857,462	01/12/1999	Thomas et al.	
CU		5,933,792	08/03/1999	Andersen et al.	
CV		5,935,062	08/10/1999	Messerschmidt et al.	
CW		5,945,676	08/31/1999	Khalil	
CX		5,957,841	09/28/1999	Maruo et al.	
CY		6,016,435	01/18/2000	Maruo et al.	
CZ		6,025,597	02/15/2000	Sterling et al.	
DA		6,026,314	02/15/2000	Amerov et al.	
DB		6,034,370	03/07/2000	Messerschmidt	
DC		6,040,578	03/21/2000	Malin et al.	
DD		6,041,247	03/21/2000	Weckstrom et al.	
DE		6,043,492	03/28/2000	Lee et al.	
DF		6,045,502	04/04/2000	Eppstein et al.	
DG		6,046,808	04/04/2000	Fateley	
DH		6,056,738	05/02/2000	Marchitto et al.	
DI		6,061,581	05/09/2000	Alam et al.	
DJ		6,061,582	05/09/2000	Small et al.	
DK		6,066,847	05/23/2000	Rosenthal	

Examiner Initial		Document No.	Date	Name	Filing Date If Appropriate
DL		6,069,905	05/30/2000	Davis et al.	
DM		6,073,037	06/06/2000	Alam et al.	
DN		6,088,605	07/11/2000	Griffith et al.	
DO		6,115,673	09/05/2000	Malin et al.	
DP		6,152,876	11/28/2000	Robinson et al.	
DQ		6,157,041	12/05/2000	Thomas et al.	
DR		6,172,743	01/09/2001	Kley et al.	
DS		6,192,261	02/20/2001	Gratton et al.	
DT		6,212,424	04/03/2001	Robinson	
DU		6,226,541	05/01/2001	Eppstein et al.	
DV		6,230,034	05/08/2001	Messerschmidt et al.	
DW		6,236,047	05/22/2001	Malin et al.	
DX		6,240,306	05/29/2001	Rohrscheib et al.	
DY		6,241,663	06/05/2001	Wu et al.	
DZ		6,272,367	08/07/2001	Chance	
EA		6,280,381	08/28/2001	Malin et al.	
EB		6,309,884	10/30/2001	Cooper et al.	
EC		6,441,388	08/27/2002	Thomas et al.	
ED		6,504,614	01/07/2003	Messerschmidt et al.	
EE		6,381,025	04/30/02	Bornhop et al	
EF		6,594,022	07/15/03	Watterson et al	
EG		5,892,786	04/06/99	Lott	
EG G		5,923,422	07/13/99	Keens et al	
EH		2002/0171834	11/21/2002	Rowe et al.	04/11/2001
EI		2003/0007147	01/09/2003	Johnson	04/11/2001
EJ		2003/0023152	01/30/2003	Abbink et al.	04/11/2001
EK		2003/0023170	01/30/2003	Gardner et al.	04/11/2001

#### FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Translation Yes No
EL		EP 0 426 358 A1	05/08/1991	Europe	
EM		EP 0 573 137 A2	12/08/1993	Europe	

		Document No.	Date	Country	Translation Yes No
EN		EP 0 631 137 A2	12/28/1994	Europe	
EP		EP 0 670 143 A1	09/06/1995	Europe	
EQ		EP 0 681 166 A1	11/08/1995	Europe	
ER		EP 0 836 083 A1	04/15/1998	Europe	
ES		EP 0 897 691 A2	02/24/1999	Europe	
ET		EP 0 898 934 A1	03/03/1999	Europe	
EU		JP 2000-131143	05/12/2000	Japan	Yes
EV		JP 2001-21489	01/26/2001	Japan	Yes
EW		WO 86/00406 A1	01/16/1986	WIPO	
EX		WO 92/00513 A1	01/09/1992	WIPO	
EY		WO 92/17765 A1	10/15/1992	WIPO	
EZ		WO 93/07801 A1	04/29/1993	WIPO	
FA		WO 97/23159 A1	07/03/1997	WIPO	
FB		WO 97/27800 A1	08/07/1997	WIPO	
FC		WO 98/37805 A1	09/03/1998	WIPO	
FD		WO 98/40723 A1	09/17/1998	WIPO	
FE		WO 99/56616 A1	11/11/1999	WIPO	
FF		WO 00/24454 A1	05/04/2000	WIPO	
FG		WO 00/49690 A1	08/24/2000	WIPO	
FH		WO 00/65988 A1	11/09/2000	WIPO	
FI		WO 01/20371 A2	03/22/2001	WIPO	
FJ		WO 01/28417 A1	04/26/2001	WIPO	
FK		WO 01/58344 A1	08/16/2001	WIPO	
FL		WO 02/065090 A2	08/22/2002	WIPO	
FM		WO 02/082989 A1	10/24/2002	WIPO	
FN		WO 01/20251 A1	08/23/2002	WIPO	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

FO		Anderson, Chad E. et al., "Fundamentals of Calibration Transfer Through Procrustes Analysis," <u>Applied Spectros.</u> , Vol. 53, No. 10 (1999) p. 1268-1276.
FP		Atherton, P.D. et al., "Tunable Fabry-Perot Filters," <u>Optical Engineering</u> , Vol. 20, No. 6, Nov/Dec 1981, pp. 806-814.
FQ		Beebe, Kenneth R. et al., "Chapter 3: Preprocessing," <u>Chemometrics: A Practical Guide</u> , ©John Wiley & Sons, Inc., date unknown, pp. 26-55.

FR	Brault, James W., "New Approach to High-Precision Fourier Transform Spectrometer Design," <u>Applied Optics</u> , Vol. 35, No. 16, June 1, 1996, pp. 2891-2896.
FS	Breiman, Leo, "Bagging Predictors," <u>Machine Learning</u> , Vol. 24 (1996) pp. 123-140.
FT	Cassarly, W.J. et al., "Distributed Lighting Systems: Uniform Light Delivery," <u>Source Unknown</u> , pp. 1698-1702.
FU	Crosdale et al., "Wavelength Control of a Diode Laser for Distance Measuring Interferometry," <u>SPIE</u> , Vol. 1219 (1990) pp. 490-501.
FV	de Noord, Onno E., "Multivariate Calibration Standardization," <u>Chemometrics and Intelligent Laboratory Systems</u> Vol. 25, (1994) pp. 85-97.
FW	Faber, Nicolaas, "Multivariate Sensitivity for the Interpretation of the Effect of Spectral Pretreatment Methods on Near-Infrared Calibration Model Predictions," <u>Analytical Chemistry</u> , Vol. 71, No. 3, February 1, 1999, pp. 557-565.
FX	Francon, M., "Chapter VI, Multiple Beam Interferences," <u>Optical Interferometry</u> , Academic Press, New York (1966).
FY	Gabriely, Ilan MD et al., "Transcutaneous Glucose Measurement Using Near-Infrared Spectroscopy During Hypoglycemia," <u>Diabetes Care</u> , Vol. 22, No. 12, December 1999, pp. 2026-2032.
FZ	Geladi, Paul et al., "A Multivariate NIR Study of Skin Alterations in Diabetic Patients as Compared to Control Subjects," <u>J. Near Infrared Spectrosc.</u> , Vol. 8 (2000) pp. 217-227.
GA	Haaland, David M., "Multivariate Calibration Methods Applied to the Quantitative Analysis of Infrared Spectra," <u>Computer-Enhanced Analytical Spectroscopy</u> , Vol. 3 (1992), pp. 1-29.
GB	Haaland, David M. et al. "Reagentless Near-Infrared Determination of Glucose in Whole Blood Using Multivariate Calibration," <u>Applied Spectroscopy</u> , Vol. 46, No. 10 (1992) pp. 1575-1578.
GC	Heinemann, Lutz et al., "Continuous Glucose Monitoring: An Overview of Today's Technologies and Their Clinical Applications," <u>IJCP Supplement</u> 129, July 2002, pp. 75-79.
GD	Heise H. Michael et al., "Near-Infrared Reflectance Spectroscopy for Noninvasive Monitoring of Metabolites," <u>Clin. Chem. Lab. Med.</u> , Vol. 38 No. 2 (2000) pp. 137-145.
GE	Heise, H.M. et al., "Near Infrared Spectrometric Investigation of Pulsatile Blood Flow for Non-Invasive Metabolite Monitoring," <u>CP430, Fourier Transform Spectroscopy: 11<sup>th</sup> International Conference</u> , (1998) pp. 282-285.
GF	Heise, H.M. et al., "Noninvasive Blood Glucose Sensors Based on Near-Infrared Spectroscopy," <u>Artif Organs</u> , Vol. 18, No. 6 (1994) pp. 1-9.
GG	Heise, H.M. "Non-Invasive Monitoring of Metabolites Using Near Infrared Spectroscopy: State of the Art," <u>Horm. Metab. Res.</u> , Vol. 28 (1996) pp. 527-534.
GH	Hopkins, George W. et al., "In-vivo NIR Diffuse-reflectance Tissue Spectroscopy of Human Subjects," <u>SPIE</u> , Vol. 3597, January 1999, pp. 632-641.
GI	Jagemann, Kay-Uwe et al. "Application of Near-Infrared Spectroscopy for Non-Invasive Determination of Blood/Tissue Glucose Using Neural Networks," <u>Zeitschrift für Physikalische Chemie</u> , Bd.191, S. 179-190 (1995).
GJ	Khalil, Omar S., "Spectroscopic and Clinical Aspects of Noninvasive Glucose Measurements," <u>Clinical Chemistry</u> , 45:2 (1999) pp. 165-177.
GK	Kohl, Matthias et al., "The Influence of Glucose Concentration Upon the Transport of Light in Tissue-simulating Phantoms," <u>Phys. Med. Biol.</u> , Vol. 40 (1995) pp. 1267-1287.
GL	Kumar, G. et al., "Optimal Probe Geometry for Near-Infrared Spectroscopy of Biological Tissue," <u>Applied Optics</u> , Vol. 36, No. 10, April 1, 1997. pp. 2286-2293.
GM	Kuwa, Katsuhiko et al., "Relationships of Glucose Concentrations in Capillary Whole Blood, Venous Whole Blood and Venous Plasma," <u>Clinica Chimica Acta</u> , 307 (3001) pp. 187-192.
GN	Lorber, Avraham et al., "Local Centering in Multivariate Calibration," <u>Journal of Chemometrics</u> , Vol. 10 (1996) pp. 215-220.
GO	Lorber, Avraham et al., "Net Analyte Signal Calculation in Multivariate Calibration," <u>Analytical Chemistry</u> , Vol. 69, No. 8, April 15, 1997, pp. 1620-1626.
GP	Malin, Stephen F., "Non-Invasive Measurement of Glucose by Near Infrared Diffuse Reflectance Spectroscopy," <u>31<sup>st</sup> Annual Oak Ridge Conference</u> , Sigma Diagnostics, Inc., April 23, 1999, 1 sheet.

GQ		Marbach, Ralf, "Measurement Techniques for IR Spectroscopic Blood Glucose Determination," March 28, 1994, pp. 1-158.
GR		Marbach, R. et al. "Noninvasive Blood Glucose Assay by Near-Infrared Diffuse Reflectance Spectroscopy of the Human Inner Lip," <u>Applied Spectroscopy</u> , Vol. 47, No. 7 (1993) pp. 875-881.
GS		Marbach, R. et al. "Optical Diffuse Reflectance Accessory for Measurements of Skin Tissue by Near-Infrared Spectroscopy," <u>Applied Optics</u> , Vol. 34, No. 4, February 1, 1995, pp. 610-621.
GT		McGarraugh, Geoff et al., "Glucose Measurements Using Blood Extracted from the Forearm and the Finger," ©TheraSense, Inc. (2001) pp. 1-7.
GU		McGuire E.A.H. et al., "Effects of Arterial Versus Venous Sampling on Analysis of Glucose Kinetics in Man," <u>Journal of Applied Physiology</u> , Vol. 41, No. 4, October 1976, pp. 565-572.
GV		Robinson, M. Ries et al., "Noninvasive Glucose Monitoring in Diabetic Patients: A Preliminary Evaluation," <u>Clinical Chemistry</u> , Vol. 38, No. 9 (1992) pp. 1618-1622.
GW		Royston, David D. et al., "Optical Properties of Scattering and Absorbing Materials Used in the Development of Optical Phantoms at 1064 NM," <u>Journal of Biomedical Optics</u> , Vol. 1, No. 1, January 1996, pp. 110-116.
GX		Service, F. John et al., "Dermal Interstitial Glucose as an Indicator of Ambient Glycemia", <u>Diabetes Care</u> , Vol. 20, No. 9, September 1997, 9 pages.
GY		Teijido, J.M. et al., "Design of a Non-conventional Illumination System Using a Scattering Light Pipe," <u>SPIE</u> , Vol. 2774 (1996) pp. 747-756.
GZ		Teijido, J.M. et al., "Illumination Light Pipe Using Micro-Optics as Diffuser," <u>SPIE</u> , Vol. 2951 (1996) pp. 146-155.
HA		Thomas, Edward V. et al., "Development of Robust Multivariate Calibration Models," <u>Technometrics</u> , Vol. 42, No. 2, May 2000, pp. 168-177.
HB		Ward, Kenneth J. et al., "Post-Prandial Blood Glucose Determination by Quantitative Mid-Infrared Spectroscopy," <u>Applied Spectroscopy</u> , Vol. 46, No. 6 (1992) pp. 959-965.
HC		Whitehead, L.A. et al., "High-efficiency Prism Light Guides with Confocal Parabolic Cross Sections," <u>Applied Optics</u> , Vol. 37, No. 22 August 1, 1998, pp. 5227-5233.

EXAMINER:

DATE CONSIDERED:

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